

Application Serial No. 10/583,881
Reply to Office Action of July 11, 2011

PATENT
Docket: CU-4891

REMARKS

Reconsideration is respectfully requested.

In the Office Action dated July 7, 2011, claims 7, 11, and 14-19 are pending and are rejected under 35 U.S.C. §103(a). The Applicant asserts that the rejections set forth in the Official Action are traversed by argument below.

The Examiner held an interview with counsel for the Applicant on October 19, 2011, in which the Examiner indicated that filing a 132 affidavit clarifying the Inventor's intention with regard paper pieces. The inventor's intention, as can be seen from the Declaration is that "paper piece" in the "washing..." and "previously dispersing..." steps means a broken piece of base paper but not broken into fiber as you find, for example, in pulp. The Examiner has agreed that with this intention, the claims overcome the prior art and that the method claims are, therefore, allowable.

To reiterate the rejections in the office action and the response, the Examiner has rejected claims 7, 11 and 16-19 under 35 U.S.C. §103(a) as being unpatentable over JP 06-142638 (Satoru et al.) (document 1), in view of U.S. 6,470,898 (Kamo) (document 2) and Smook (Handbook for Pulp and Paper Technologists) (document 3).

The Applicant respectfully disagrees and submits that the claims are non-obvious and patentable.

Specifically, as the invention according to currently pending claim 7 is compared with the disclosures of document 1, document 2, and document 3, at least features of "washing the separated paper piece with water in a rotary drum-type washing device so as to eliminate a gypsum component adhering to the paper piece from the paper piece" and "previously dispersing or mixing the separated paper piece into a portion of washing water before the separated paper piece is introduced to the rotary drum-type washing device" as recited in currently pending claim 7 are not disclosed or suggested

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in any of document 1, document 2, and document 3, in whole or in combination.

Also, as the invention according to currently pending claim 11 is compared with the disclosures of document 1, document 2, and document 3, at least features of "a rotary drum-type washing device configured to wash the separated paper piece with water so as to eliminate a gypsum component adhering to the paper piece from the paper piece" and "a device configured to disperse or mix the separated paper piece into water before washing the separated paper piece with water" as recited in currently pending claim 11 is not disclosed or suggested in any of document 1, document 2, and document 3, in whole or in combination.

In particular, a "paper piece with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 should be "obtained" in such a manner that "after the total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times" as is disclosed in paragraph [0008] of document 1, and should be a paper piece such as a "paper piece of about 4 - 8 mm" as is disclosed in paragraph [0008] of document 1. Accordingly, such a "paper piece with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 does not correspond to "paper stock" as is disclosed in claim 1 of document 2, "papermaking stock" as is disclosed at line 5 in the right column on page 228 of document 3, or "fibers" as is disclosed at line 8 in the right column on page 228 of document 3. Thus, the opinion that "the act of crushing and then agitation/mixing into water breaks the paper pieces into fibers dispersed in water (i.e. pulp)" indicated at lines 11 to 12 on page 2 of the office action or the opinion that "this paper piece is transformed into pulp via the action of dilution with water and agitation" indicated at lines 9 to 10 on page 3 of the office action is not reasonable.

In addition, it is considered that a "sieve" in matters of "after the total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times" as is disclosed in paragraph [0008] of

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document 1 should be a "vibrating sieve with a mesh of 2 mm" as is disclosed in paragraph [0008] of document 1. Herein, if "the act of crushing and then agitation/mixing into water breaks the paper pieces into fibers dispersed in water (i.e. pulp)" as indicated at lines 11 to 12 on page 2 of the office action or "this paper piece is transformed into pulp via the action of dilution with water and agitation" as indicated at lines 9 to 10 on page 3 of the office action, it would be difficult or impossible to attain recovery of such "pulp" on a "vibrating sieve with a mesh of 2 mm" as is disclosed in paragraph [0008] of document 1. Accordingly, a "paper piece" in matters of "after the total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times whereby calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum and paper pieces available for waste paper could be obtained" as is disclosed in paragraph [0008] of document 1 does not correspond to "pulp". Thus, the opinion that "the act of crushing and then agitation/mixing into water breaks the paper pieces into fibers dispersed in water (i.e. pulp)" indicated at lines 11 to 12 on page 2 of the office action or the opinion that "this paper piece is transformed into pulp via the action of dilution with water and agitation" indicated at lines 9 to 10 on page 3 of the office action should be inconsistent with matters of "after the total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times whereby calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum and paper pieces available for waste paper could be obtained" as is disclosed in paragraph [0008] of document 1, and is clearly technically incorrect.

Furthermore, an object such that "calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 does not correspond to an object of "paper stock cleaning" as is disclosed in claim 1 of document 2. Accordingly, a matter of "calcined gypsum adhering to the paper pieces was completely washed out so as to

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obtain paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 and a matter of "paper stock cleaning" as is disclosed in claim 1 of document 2 should not have a relationship between "one known component for the same purpose" and "another known component for the same purpose" as indicated at lines 19 to 21 on page 5 of the office action.

Moreover, a matter of "calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum and paper pieces available for waste paper could be obtained" as is disclosed in paragraph [0008] of document 1 should suggest that it should be unnecessary to apply "paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 to a "paper stock cleaning apparatus" as is disclosed in claim 1 of document 2 or the like. Accordingly, there should be no motivation for those skilled in the art at the time of the claimed invention to apply "paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 to a "paper stock cleaning apparatus" as is disclosed in claim 1 of document 2 or the like. Thus, opinions of "at the time of the invention it would have been obvious to additionally wash the agitated used paper of document 1 in the washing device of document 2" and "the person of ordinary skill in the art would be clearly motivated to use the washer of document 2 to obtain a clean pulp" as indicated at lines 12 to 16 in page 5 of the office action is clearly unreasonable.

Hence, it would not have been obvious for those skilled in the art to apply "paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 to a "paper stock cleaning apparatus" as is disclosed in claim 1 of document 2, "paper machine" as is disclosed at line 26 in the left column on page 228 of document 3, or the like.

Therefore, the invention according to currently pending claim 7, the invention according to any of currently pending claims 16 and 18 depending from currently pending claim 7, the invention according to currently pending claim 11, or the invention according to any of currently pending claims 17 and 19 depending from currently pending claim 11 are not obvious for those skilled in the art from the disclosures of

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document 1, document 2, and document 3.

Second, the Examiner generally states that currently pending claims 14 and 15 should be rejected under 35 U. S. C. 103 (a) as being unpatentable over document 1 in view of document 2 and document 3 and further in view of document 4 (US 5,255,540) (LeBlanc).

The Applicant disagrees and submits that the claims are non-obvious and allowable.

Specifically, as the invention according to currently pending claim 14 is compared with the disclosures of document 1, document 2, document 3, and document 4, at least features of "washing the separated paper piece with water in a rotary drum-type washing device so as to eliminate a gypsum component adhering to the paper piece from the paper piece" and "previously dispersing or mixing the separated paper piece into a portion of washing water before the separated paper piece is introduced to the rotary drum-type washing device" as recited in currently pending claim 7 cited in currently pending claim 14 are not disclosed or suggested in any of document 1, document 2, document 3, and document 4, in whole or in combination.

Also, as the invention according to currently pending claim 15 is compared with the disclosures of document 1, document 2, document 3, and document 4, at least features of "a rotary drum-type washing device configured to wash the separated paper piece with water so as to eliminate a gypsum component adhering to the paper piece from the paper piece" and "a device configured to disperse or mix the separated paper piece into water before washing the separated paper piece with water" as recited in currently pending claim 11 cited in currently pending claim 15 are not disclosed or suggested in any of document 1, document 2, document 3, and document 4, in whole or in combination.

In particular, a "paper piece with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 should be "obtained" in such a manner that "after the

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total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times" as is disclosed in paragraph [0008] of document 1, and should be a paper piece such as a "paper piece of about 4 - 8 mm" as is disclosed in paragraph [0008] of document 1. Accordingly, such a "paper piece with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 does not correspond to "paper stock" as is disclosed in claim 1 of document 2, "papermaking stock" as is disclosed at line 5 in the right column on page 228 of document 3, "fibers" as is disclosed at line 8 in the right column on page 228 of document 3, or "pulp fiber" as is disclosed in claim 1 or 10 of document 4. Thus, an opinion of "the act of crushing and then agitation/mixing into water breaks the paper pieces into fibers dispersed in water (i.e. pulp)" indicated at lines 11 to 12 on page 2 of the office action or an opinion of "this paper piece is transformed into pulp via the action of dilution with water and agitation" indicated at lines 9 to 10 on page 3 of the office action is unreasonable.

In addition, it is considered that a "sieve" in matters of "after the total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times" as is disclosed in paragraph [0008] of document 1 should be a "vibrating sieve with do mesh of 2 mm" as is disclosed in paragraph [0008] of document 1. Herein, if "the act of crushing and then agitation/mixing into water breaks the paper pieces into fibers dispersed in water (i.e. pulp)" as indicated at lines 11 to 12 on page 2 of the office action or "this paper piece is transformed into pulp via the action of dilution with water and agitation" as indicated at lines 9 to 10 on page 3 of the office action, it would be difficult or impossible to attain recovery of such "pulp" on a "vibrating sieve with a mesh of 2 mm" as is disclosed in paragraph [0008] of document 1. Accordingly, a "paper piece" in matters of "after the total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times whereby calcined gypsum

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adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum and paper pieces available for waste paper could be obtained" as is disclosed in paragraph [0008] of document 1 does not correspond to "pulp". Thus, the opinion that "the act of crushing and then agitation/mixing into water breaks the paper pieces into fibers dispersed in water (i.e. pulp)" indicated at lines 11 to 12 on page 2 of the office action or the opinion that "this paper piece is transformed into pulp via the action of dilution with water and agitation" indicated at lines 9 to 10 on page 3 of the office action is inconsistent with matters of "after the total amount (1.31 kg) of the paper pieces with adhering calcined gypsum were thrown into 20 liters of water and slight agitation was conducted, recovery was conducted on a sieve" and "such a operation was repeated three times whereby calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum and paper pieces available for waste paper could be obtained" as is disclosed in paragraph [0008] of document 1, and is clearly technically incorrect.

Furthermore, an object such that "calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 does not correspond to an object of "paper stock cleaning" as is disclosed in claim 1 of document 2 or an object of "wood pulp fiber washing" as is disclosed in claim 1 of document 4. Accordingly, a matter of "calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 and a matter of "paper stock cleaning" as is disclosed in claim 1 of document 2 or a matter of "wood pulp fiber washing" as is disclosed in claim 1 of document 4 does not have a relationship between "one known component for the same purpose" and "another known component for the same purpose" as indicated at lines 19 to 21 on page 5 of the office action.

Moreover, a matter of "calcined gypsum adhering to the paper pieces was completely washed out so as to obtain paper pieces with no adhering gypsum and paper pieces available for waste paper could be obtained" as is disclosed in paragraph

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[0008] of document 1 suggests that it would be unnecessary to apply "paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 to a "paper stock cleaning apparatus" as is disclosed in claim 1 of document 2, a "wood pulp fiber washing device" as is disclosed in claim 1 of document 4, a "pressurized dynamic pulp washer" as is disclosed in claim 10 of document 4, or the like. Accordingly, there would be no motivation for those skilled in the art at the time of the claimed invention to apply "paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 to a "paper stock cleaning apparatus" as is disclosed in claim 1 of document 2, a "wood pulp fiber washing device" as is disclosed in claim 1 of document 4, a "pressurized dynamic pulp washer" as is disclosed in claim 10 of document 4, or the like. Thus, the opinions that "at the time of the invention it would have been obvious to additionally wash the agitated used paper of document 1 in the washing device of document 2" and "the person of ordinary skill in the art would be clearly motivated to use the washer of document 2 to obtain a clean pulp" as indicated at lines 12 to 16 in page 5 of the office action is unreasonable.

Hence, it would not have been obvious for those skilled in the art to apply "paper pieces with no adhering gypsum" as is disclosed in paragraph [0008] of document 1 to a "paper stock cleaning apparatus" as is disclosed in claim 1 of document 2, "paper machine" as is disclosed at line 26 in the left column on page 228 of document 3, a "wood pulp fiber washing device" as is disclosed in claim 1 of document 4, a "pressurized dynamic pulp washer" as is disclosed in claim 10 of document 4, or the like.

Therefore, the invention according to currently pending claim 14 or the invention according to currently pending claim 15 is non-obvious from the disclosures of document 1, document 2, document 3, and document 4, in whole or in combination.

None of the references disclose or suggest the features of the claims. The Applicant submits that the claims are therefore non-obvious and allowable. Withdrawal of the rejection is respectfully solicited.

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CONCLUSIONS

The Applicant respectfully contends that all conditions of patentability are met in the pending claims. The Applicant respectfully submits that this application should be in condition for allowance. Furthermore, the Applicant respectfully requests favorable consideration.

Respectfully Submitted,



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